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REPORT
OF THE
Commission of
Hamilton College Alumni
APPOINTED BY
THE BOARD OF TRUSTEES
TO
INVESTIGATE AND REPORT
ON THE
Entrance Requirements and
the Curriculum

JUNE, 1912

Ithaca, N. Y.
Andrus & Church
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APPOINTMENT AND WORK OF THE COMMISSION.

At the meeting of the Board of Trustees of Hamilton College held on Wednesday, June 29, 1911, it was resolved that :

“The chairman of this Board shall appoint a special commission of alumni and experts on education, with the fullest powers of inquiry and investigation, which shall make a careful study of the present curriculum and entrance requirements of Hamilton College, and shall, after consultation with the members of the faculty, report back to the Board such changes and alterations as to them may seem expedient.”

The chairman of the Board, The Hon. Elihu Root, appointed as such commission the following :

H. C. G. Brandt, Class of 1872, Clinton, N. Y.

A. S. Hoyt, Class of 1872, Auburn, N. Y.

G. P. Bristol, Class of 1876, Ithaca, N. Y., Chairman.

A. B. Davis, Class of 1878, Mount Vernon, N. Y.

C. H. Stone, Class of 1878, Cornwall-on-Hudson, N. Y.

A. C. McLachlan, Class of 1881, Jamaica, N. Y.

C. N. Kendall, Class of 1882, Trenton, N. J.

E. N. Jones, Class of 1883, New York City.

E. B. Parsons, Class of 1884, Brooklyn, N. Y.

George Lawyer, Class of 1885, Albany, N. Y.

C. B. Cole, Class of 1887, New York City.

J. D. Rogers, Class of 1889, Decatur, Ill.

E. L. Stevens, Class of 1890, New York City.

J. M. Curran, Class of 1892, Chicago, Ill.

T. F. Collier, Class of 1894, Providence, R. I., Secretary.

A. W. Boesche, Class of 1897, Ithaca, N. Y.

The chairman of the commission opened correspondence with the other members early in the autumn of 1911, and after receiving from nearly all of them their preferences for the manner of procedure and for the subjects of immediate

discussion, called a meeting of the commission for December 2, 1911. The commission was fortunate in being able, through the courtesy of President Pritchett, to hold this and its later meeting at the offices of the Carnegie Foundation in New York City, and records here their grateful acknowledgement of this favor.

At this meeting preliminary resolutions defining the commission's attitude on several fundamental questions were adopted, and provision was made for continuing the work through correspondence, and also for conferences with members of the Faculty of the College.

The chairman with Messrs Hoyt and Kendall, as a special committee visited the College on January 27, 1912. They called on the President, and afterward spent the entire day in interviews with individual members of the Faculty. The professors were requested to submit written statements of their views if desired, and a number of them did so. From the stenographic report of the interviews, and from the written papers sent in the chairman made a digest of the opinions of the Faculty for each member of the commission. While they differed in a number of points, the Faculty were unanimously in favor of a group system as the proper basis for the curriculum. A large majority of them favored the inclusion of a larger number of subjects in the entrance requirements, and the reduction of the number of degrees now granted to two.

Further interchange of views among members of the commission was followed by a second and final meeting in New York on May 10 and 11, 1912. After the fullest discussion of the matters entrusted to them the commission adopted the following report.

PREFATORY NOTE.

“Our whole (college) system of instruction needs an honest, thorough, and candid revision. It has been for centuries the child of authority and precedent. If those before us made it what it is by applying to it the resources of earnest and fearless thought, I can see no reason why we, by pursuing the same course, might not improve it.”

“I consider that a great step has been made in a reformation when it has been granted that the present system is open to examination, and is not stereotyped for all ages. When this is done there is hope of amendment.” Francis Wayland, 1854, 1855.

The distinguished author, scholar, and teacher whose words are cited, exercised in the middle of the last century an immense influence on education, and particularly on college education. He was no radical, no iconoclast, but a clergyman of an orthodox church as well as president of a New England college. He recognized that dissatisfaction with a condition is the first and necessary step in its improvement. The conditions at Hamilton which have led to the appointment of this commission are certainly to be regarded as “hopeful”; for there is just now a feeling that the educational efficiency of the college is not so great as it might be.

The situation thus presented is one frequently recurring in the history of American colleges. Similar problems have been studied and solved in various ways by a number of them with traditions and life-histories much like our own. From their experiences, and the conditions resulting therefrom, we may get assistance in our work. An historical resumé seems therefore the natural and reasonable prelude to any discussion of the present case.

SECTION I.

HISTORICAL AND STATISTICAL.

The American college is, as is well known, the child of English parents. From old Cambridge came the impulses and the guiding spirit to the Cambridge of the new land. Graduates of Harvard in their turn inspired and guided for more than a generation the sister college at New Haven. From the latter went out the leaders, and the controlling ideas as well, for several others, among them Princeton. All information available shows that these colleges were practically identical in aims and methods. What differences appear are due more to the possibility here or there of carrying out more efficiently one fundamental purpose.

President Henry Barnard of Columbia stated this purpose concisely: "Our earliest colleges were founded on the model of those of the British universities; and here, as there, their avowed design, at the time of their foundation, was not merely the general design to raise up a class of learned men; but specifically to raise up a class of learned men for the Christian ministry."

THE EIGHTEENTH CENTURY CURRICULUM.

In 1740, Thomas Clap, the newly inducted president of Yale, in a codification of the laws of the college gives us this information about the studies of the institution: "The President and each of the tutors shall, according to the best of their discretion, instruct and bring forward their respective classes in the knowledge of the *three learned languages* (Hebrew, Greek, Latin), and in the liberal arts and sciences. Tabulating his scheme it runs:

First Year.

They shall principally study the Tongues and Logic (and shall in some measure pursue the study of tongues the two next years.)

Second Year.

They shall recite Rhetoric, Geometry, and Geography.

Third Year.

Natural Philosophy, Astronomy, and other parts of the Mathematics.

Fourth Year.

Metaphysics and Ethics.

“ But every Saturday shall be allotted to the study of Divinity. On Friday each undergraduate, in his order, about six at a time, shall declaim in the Hall in Latin, Greek or Hebrew, . . . and shall presently after deliver up his declamation to his tutor, fairly written and subscribed. And the two senior classes shall dispute in the Hall twice a week.”

Any one who compares this program with the curriculum at Hamilton down to about 1882 will be convinced of the origin of the latter, and will be surprised to see how little changed in substance the theory and practice in college training had been during one hundred and fifty years. Not until the middle of the nineteenth century was there any general or important modification in its character.

Equally clear evidence of the underlying plan and purpose of the American college is afforded by the titles of the professorships. Taking six colleges,—Harvard, Dartmouth, Brown, Yale, Columbia, and Princeton—we find the following professorships established in 1802. Divinity in three; Oriental languages in two; Mathematics and Natural Philosophy in all; Chemistry and Medicine in two; Greek and Latin in three. Harvard had six professorships in all, three in Medicine; Columbia four; Dartmouth, Yale, and Princeton, three each; Brown two.

REPORT IN 1828 OF YALE FACULTY TO THE CORPORATION.

In 1827 the Corporation of Yale College referred to a committee of their own body the question “of so altering

the regular course of instruction in this college, as to leave out of said course the study of the dead languages, substituting other studies therefor ; and either requiring a competent knowledge of said languages as a condition of admittance into the college ; or providing instruction in the same for such as shall chose to study them after admittance."

The committee requested the faculty to express their views, and the faculty's report on the matter was made the basis for the action (properly speaking, lack of action) of the corporation. The report of the faculty is in two parts and very long. It is a complete exposition of the doctrine of liberal education as held at Yale in the earlier part of the nineteenth century, and not only at Yale but in most of the colleges closely connected with her in academic tradition.

The first part treats of the general plan of education in the college. Young men are to learn how to use their minds ; they are to "lay the foundations of a superior education under the proper substitute for parental superintendence." We find here a distinction made between "liberal" and "professional" studies. Out of the old united faculty of one college have now developed separate departments, or schools, of Theology, Law and Medicine. We in the United States have in general been about a century in getting back to the old idea of study for a fixed purpose, and to a broader notion of the whole field and function of a university. Had the colleges a century ago been willing to admit that the widened field of knowledge made necessary a wider liberty of choice in the fundamental subjects of higher education, separate schools of medicine, and other forms of applied science, might never have grown up to be a disgrace to our education, and to furnish us with generations of quacks and impostors.

The second part of the report is an elaborate argument for the retention, as the center of the whole scheme, of Latin and Greek. The arguments are the familiar ones : "these literatures are the only perfect models ; the careful learning of the structures of these languages is the best possible way

to understand our own ; the example of the English colleges," etc. But there are indications, in their report itself, that the writers felt themselves somewhat on the defensive. They speak of "parents who do not wish their sons to study what seems to them of so little use ;" they admit that the prolonged study of the classics will be of more direct benefit to the lawyer and preacher than to those entering other professions, although "the physician will need them if he study the history of his subject." In reply to the plea that the time required for this work puts off too long the beginning of studies directly professional, they say that the student will have time for the four college years *and* three years of professional study before he is twenty one. Probably few succeeded in this. There is further an implication that the college could not afford financially the attempt to give instruction in a great variety of subjects, and it is likely that this fact, in other places as well, has been a strong, though unacknowledged factor in similar arguments.

They express further, the belief that "much misconception concerning the utility of the ancient languages has arisen from the fact that they have been but partially studied and acquired." They believe that "the terms of admission may properly be raised so as to render necessary as a condition of admission much greater requirements in the classics than now prescribed." The faculty sees clearly that the argument for the supreme excellence of the ancient classics in education rests largely on the results of the system in the English colleges, and that it is deprived of much of its strength if the study is not carried on in the same way and to the same amount. Evidence of this is furnished by their statement, "when the student has passed through the rugged and cheerless region of elementary learning, when instead of plodding over a page of Latin and Greek with his grammars and dictionaries and commentaries, he reads those languages with facility and delight." One naturally asks "how many ever reach this stage?" One thing is noteworthy : that throughout the

discussion when modern languages are spoken of, there is no mention of German.

The Corporation took the Faculty's view of the matter, declined to make the change suggested, and decided that :

1. We must have an education equal to the best in Europe.

2. This training must endure to inspire youth with patriotism.

3. "The single consideration that Divine truth was communicated to man in the ancient languages ought to put this question at rest, and give them perpetuity." (This phrase is attributed to Governor Tomlinson, of Conn., a member of the Corporation.)

In this survey of the development of the curriculum in New England, and in the colleges elsewhere largely or altogether under the influence of Yale, no attention has been paid to other institutions which took a different road. There were a number of them, but they exercised no appreciable influence on the college in which we are interested, and may be left out of consideration. New forces were growing, however, in New England itself. One is too important to be overlooked.

PROPOSED REFORM IN AMHERST COLLEGE. 1827.

The faculty of Amherst in 1827 say to their Board of Trustees that "the American public is not satisfied with the present course of education in our higher seminaries." They express the belief "that any college may retain the Latin and Greek languages . . . may insist more strenuously than before on the study of the abstruse sciences, . . . providing it will at the same time open its doors to that large class of young men who are not destined to either of the learned professions, and carry them through a course, which *they* think better adapted to their future plans and prospects." Six months later they present a second report in which they say : "Our decided and unani-

mous judgment is, that if a new course is introduced, it ought to proceed on a most liberal scale. By whatever name it may be called, it should be fully equivalent to the course which we now pursue. It should fill up as many years, should be carried on by as able instructors, should take as wide and elevated a range, should require as great an amount of hard study or mental discipline, and *should be rewarded by the same academic honors.*" Clearly they believe that studies may differ in kind and still give results of equal educational value. It is interesting to note that the German language is spoken of as a possible factor in this new method, although it is to be subordinated to the Romance tongues. The plan was not followed up, and the course of study at Amherst remained under the domination of the Yale idea, just described, which was announced in the following year.

Just whence came this impetus to the faculty of Amherst is not certain. At Harvard College new ideas were coming in those days, and coming from Germany. George Ticknor, after four years spent at the University of Goettingen, became professor of modern languages at Harvard in 1825. At that time the principle of elective studies was first adopted there. It is the beginning in the New England type of college, of the principle urged by the faculty of Amherst in 1827. This beginning was in a small way, but the underlying idea was the direct precursor of the fuller program of studies adopted at Harvard in 1867, which in turn gave way by successive steps to the "university" (as against "college") free and open elective system of the present.

In 1850, President Wayland of Brown University, reviewing the progress of this movement, says: "In this century science after science was added to the curriculum as fast as the pressure from without seemed to require it. To do this the time allotted to the previously existing subjects was curtailed. The number of subjects was increased in large measure, but each one was taught less perfectly than before."

It is not necessary to follow more recent developments in college curricula. Hamilton adopted in 1882 the plan of elective studies in part, and the changes in the number and character of them since then have been more the result of incidental causes than of fundamental educational policies.

PROGRESS OF "CLASSICAL EDUCATION."

No word has been more used at Hamilton and elsewhere to describe the older type of collegiate education than "classical." It has generally been held to mean a training in which Latin and Greek, and the latter in particular, were characteristic and important elements. A glance at the Hamilton catalogues prior to 1883 show clearly what was meant, viz. four years preparation in Latin, three (two) in Greek; and the continuance of the two languages during two-thirds of the college course. Looking to the history of the American college we see plainly enough that the original reason for requiring a knowledge of the two tongues was to enable students to read the books to be expounded in college. The knowledge was a definite means to a definite end. "No one shall be admitted to the college until he can resolve Tully and the Greek Testament." The examination was what we should now call a "sight test" in reading and translating. But as early as 1784, at least, certain portions were selected from the authors, practically as in the examinations of recent years. There are statements in college regulations during the eighteenth century which indicate clearly enough that the entrants could not read Latin as they were supposed to do, and one writer about the year 1800 says that the most of the college students cared only "to learn just enough of it to get their diplomas." The remarks of writers and scholars about the decline of classical learning and study sound very familiar. Apparently it has always been "declining."

The great defect in our theory of "classical" training as actually applied is this. We give to its study both in the

preparatory school and in college far less time than is devoted in European countries to covering the same amount of ground, and we furnish greatly inferior teachers in the majority of our schools. In Latin, for instance, we imagine that our boys and girls can and will accomplish in one year of 38 school weeks at the most, with five recitations per week, such preparation as will enable them to take up the reading of Caesar with profit. The German boy spends on this work two school years of more than forty weeks each, and with as many as twelve exercises per week for a part of that time. So in college we have cut down the time required for thorough mastery of the language (we have given up the fiction that our students can read the language at entrance), in order to make way for other subjects. So far as we are dealing with universally required subjects like History or Economics this is probably necessary and right. We should at the same time, however, realize that we are holding fast to the *name* of a system of education after we have given up the essential features which made it valuable. At Hamilton two or three years of Greek were required, until recently, for admission, and seven terms study of the language in college, about five years in all. Now the A.B. degree may be secured by the study of Greek for two years. If A.B. is to be the exclusive mark of a "classical" education, then Latin, and still more Greek, should be enforced on every student throughout the four years of the course. We may reasonably doubt the special value of a degree which is to be obtained by studying, in the words of Samuel Miller, in 1802, "just enough of the ancient tongues to secure a diploma."

ACADEMY, HIGH SCHOOL, COLLEGE, PROFESSIONAL SCHOOL.

A brief historical summary of the origin and growth of the academy is useful in understanding its relations to the college in general. We may confine our attention to New

York State, as it very early made a comprehensive organization of public education.

The act of the Legislature in 1787, incorporating the "Regents of The University of The State of New York", defines the way in which trustees of "academies for the instruction of youth in the languages and other branches of useful learning" may be incorporated and hold property. The act further provides that "whenever it shall appear to the Regents that the state of literature in any academy is so far advanced, and the funds will admit thereof, they may authorize the trustees of such academy to elect a president with all the powers that a president of a college enjoys, and that such academy shall be thereafter known as a college, and shall to all effects be a college." The Regents further declared that no academy ought to be erected into a college until the state of literature therein is so advanced, and its funds so far enlarged, as to render it probable that it will attain the ends and support the character of a college in which all the liberal arts and sciences are to be cherished and taught."

The main difference, then, between the two institutions was the ability through increased funds to increase the amount and to improve the grade of instruction. In their report in 1793, the regents note the establishment in the previous year of two academies, "at Schenectady and in the neighborhood of the Oneida nation." Of the latter (Hamilton-Oneida Academy), they say that a part of the plan of this is to "extend the blessing of Science to the untutored savages so as gradually to qualify them for all the duties of enlightened citizens." The following year the regents urge the adoption of a plan for common schools "for those settlements where there are no academies." This is the beginning of free public education in New York State, but the plan was not lasting.

In 1793 Hamilton-Oneida Academy was chartered under these resolutions. The founders recite its need to "prevent the youth of that part of the country growing up in a

state of gloomy ignorance." Samuel Kirkland says that the institution is "for the mutual benefit of the young and flourishing settlements, and the various tribes of confederated Indians." He adds his wish that it may prove an eminent means of diffusing useful knowledge." In 1800 we learn that "about fifty students are being taught the Greek, Latin, and English languages under two able instructors." A college charter was asked for in 1805, but not obtained until 1812.

The first three professorships in the college show us the broad nature of the education planned: Chemistry and Mineralogy; Mathematics and Natural Philosophy; Greek and Latin Languages. These were filled at the start or within a few years. The following were proposed but were not filled, save in one case, and that appointee did not actually begin work: one professorship each in Institutions of Medicine, Surgery and Anatomy, Obstetrics. The desirability of appointing a professor of Divinity was acknowledged at various times, and apparently without any opposition. The lack of funds prevented. The general agreement as to the need for such a professor was evident in 1827, and apparently only the lack of funds prevented the establishment also of a professorship of Book-keeping, and of Civil Engineering.

As these facts show, the idea that one kind of learning is "liberal", while another sort is "professional" or "vocational" is not to be found in the early history of Hamilton. Separate schools of Theology, Law, Medicine, or Technology did not then exist. Higher education included all preparation for life work. Men went directly from college to the practice of their several callings. Look over the stated equipment of the early academies and colleges, and note the frequency of the "surveyor's compass." This idea of instruction in subjects directly useful to the community underlies, fifty years later, the founding of the professorship in Agricultural Chemistry. This, by the way, received the largest endowment in the history of the college.

Had the plan been treated more seriously by the trustees then or later, or had the first incumbent of the chair, Edward Walstein Root, lived, the story of a lost opportunity might never have been told. Law was taught to undergraduates from 1837 until 1855, when a separate school was established. The Science and Art of Education are taught now. "Useful knowledge" has never been denied admission to the course.

But the development of knowledge, and specially of scientific knowledge, has forced a longer time of study in preparation for all vocations. One by one they have come to demand training of a very special character. So professional schools have grown to meet this demand. The time needed to complete a course of study in Law, for example, is now three years at the least, and in some schools four years. Medicine makes even greater demands. Other vocations than the oldest three have been systematized; farming is the latest, and now mercantile pursuits are following fast.

The graduate of a "college" now faces the necessity for another four years of study before he is ready to earn his living. The college cannot give him all his training for life as it once did. It may "educate him to use his leisure" and does well so to train him. If he is able financially, he may stay through four years of general study, and then begin study directed to his life work. Not all young men *can* do this; not all who can do it, *will*. Thus one great problem of the college course for each individual is fixed in a measure by his future work. In other words, *the function of the college is partly determined by that of the professional school.*

At the other end of the college course we find now the private school, or the public school. So soon as the college in its development calls for a certain amount of formal preparation as a condition of admission, we have the question, so puzzling to-day to many people, of the relation of the college to the high school. Looked at historically it is simple.

The first academies were largely the result of private, or community, benefaction. They were not *free* public schools. That idea as applied to anything beyond elementary education is of quite recent growth. The trustees of Hamilton-Oneida Academy say in 1792 "that no one is admitted to their school who cannot read and write." The Academy was both primary and secondary school, as we now classify them. The Academy as a secondary institution grew as the college unloaded upon it subject after subject. When the "college" was practically the professional school, (or, at least the only thing of the kind existing), the academy represented the place and function of the college to-day. Gradually there has been a pushing back of one subject after another. Arithmetic, for example, was taught in college down to the beginning of the nineteenth century. Then it was relegated to the academy, whence it has now gone to the elementary school. Geography (in the older sense of the term), has been treated in the same way.

The establishment of a free elementary school system took part of the work of the academy, which then remained, as an independent institution, in some places rivalling the local college; in others preparing students for college, or fitting them for business life or for professional study, or both. The older type of academy gave way to the "Free Academy," and by degrees during the latter part of the last century the Free Public High School as we know it to-day became firmly established. An interesting statement was made in 1823, in connection with a movement for high schools in New York City: "Public opinion and the wants of a large class of citizens of this town have long been calling for a school in which those, who have either not the desire or the means of obtaining a classical education, might receive instruction in many branches of great practical importance which have usually been taught only at the colleges." The college, it seems, at that time gave more "practical" instruction than the academies.

This development seems to remove any ground for the absurd fear of any subject in the college course which may

be called "useful," "practical," or "vocational." For opposition to such studies there is no basis in the history of our college. "All knowledge is for use" is a maxim almost expressly stated by our founders, and surely taken for granted when they were arranging for a professorship of Divinity, of Anatomy, or of Engineering.

There is, however, another reason for looking closely to the growth of the public high school. From this the college must get the majority of its students. So long as academies, privately owned and privately managed, furnished the entrants to college, so long might the authorities of the college arrange the course of instruction in the academies to meet primarily the college terms of admission. But just as soon as the schools became free schools, supported by taxation, this possibility was gone. Hamilton college has lost sight of this, and is paying the penalty for her neglect.

The high school course of study must be organized to meet the needs of the State and of the community which support it. It must be adapted to the 90% of its students who do not go to college. The educational authorities of the state, or of the community, or both working together, must make their courses of study in the light of our best educational theory. This is based upon foundations as certain as those of any experimental science. College men have had a large share in framing our school schedules. The high school courses of study represent the thought of our best students of Psychology, of Economics, and of other sciences. The foremost colleges recognize this. The great state systems of the middle and far West have articulated their education in an efficient fashion. They may not be perfect, may not show now the form of their ultimate development, but the men who have formulated them have turned to the light.

The lessons for us at Hamilton are plain. They are not in character different from those of the same type of college everywhere. If we are to prosper, we must find just what

is our sphere of action now, when many of our old functions have been taken over by the professional school on the one hand, and by the high school on the other. We must listen to the words of experts in the special fields of education. When the leaders in secondary education say that during the adolescent period of life it is important to open several aspects of study to the boy, the college ought not to say to those coming to it: "Waste no time upon topics outside our requirements."

A practical summary of the situation is this: The college is not necessary to the high school; but the high school is very necessary to the college.

DEVELOPMENT OF ENTRANCE REQUIREMENTS.

From the first records of Harvard College down to the middle of the eighteenth century a knowledge of Greek and Latin is the only requirement for admission. It is worth while to notice that the power to read and to write these languages (and Latin in particular), is aimed at. In 1745 Arithmetic was added to these two at Yale College, and presently elsewhere. This was the first step in the progress by which all else in the secondary school curriculum has been put there by gradual crowding out of the college.

By the year 1800 the requirement in language has become a quantitative one quite generally. A fixed amount of Latin must be read. To be sure a test in composition is nominally called for, but it has never been more than a farce in the great majority of institutions. It is only in the last few years that we have returned to the earlier idea of power to use a language as the only proper test of acquaintance with it. At the close of the Civil War the present conditions in amount of subjects required had substantially been reached. But as the college continued to push back upon the preparatory school more and more work, and as a steadily increasing number of subjects appeared in the school curriculum; election in the latter became as necessary as in the college itself. In theory all elementary work

in any branch was to be done before the student entered college. Curiously enough modern languages were not (and to a large extent even now are not) thus treated. A college teaches elementary French or German without apology or excuse for including them in its course of study. It declines to teach even a fourth year of Latin, as it is "properly only high school work." "The A.B. degree," the college says, "is the hall-mark of a gentleman, and Latin (either with or without Greek in various cases), is the essential subject for that degree. But if you have not been fortunate enough to get about four-fifths of the necessary amount of that language before you come to us, we won't give you what you lack, nor the degree depending upon it."

THE GEOGRAPHICAL CONSTITUENCY OF HAMILTON.

The petition of the founders of the Hamilton-Oneida Academy for a charter, and the letter of Samuel Kirkland at the same time, show that one of the motives for their action was to give education to the youth of the "surrounding country." The money raised in the vicinity and given by friends elsewhere was for service to the community, to the "western district" no less than to the state.

The following figures help us to judge how far the college is meeting the needs of this population.

Year	Total Number		New York State		From within 25 miles	
	Fac.	Studs.	No.	Per cent	No.	Per cent
1868	9	183	159	82	56	30
1893	18	138	114	82	32	23
1911	20	188	138	73	42	22

POPULATION OF NEW YORK STATE AND NUMBER OF STUDENTS.

Year	Pop. of State	Studs. from State	Ratio
1868	3,800,000	159	About 1 in 24,000
1893	6,500,000	114	" 1 in 57,000
1911	9,000,000	138	" 1 in 65,000

POPULATION OF ONEIDA AND HERKIMER COUNTIES AND RATIO.

Year	Population	Students from within 25 miles	Ratio
1868	141,867	56	About 1 in 2,500
1893	171,247	32	" 1 in 5,300
1911	210,513	42	" 1 in 5,000

SECTION II.

THE PRESENT SITUATION AND OUR PROBLEM.

The commission was asked to "consider the whole question of entrance requirements and curriculum." The address of the Chairman of the Board of Trustees at our first meeting indicated further that we are to recommend such modifications in the present educational policy of the college as shall secure for its students a "liberal education." There is "no intention of making the college a professional or technical school." It does not profess to prepare students for any specific vocation. What, then, *is* the college to do?

It ought to give to *all* its students such instruction as will increase their powers of observation, judgment, and expression; will widen their sympathies; will ensure for them a richer and fuller individual life; and will make them useful members of society. Along with this training it ought to give to *each* student the best possible basis for such personal study as his plans for life work may demand.

To do this effectively present conditions must be changed, for:

1. The relations of "college" to higher and to secondary education have been modified by the development of our social organization. No power can now restore the conditions of fifty, or even twenty years ago.

2. Boys now seek college training for a greater number of purposes than ever before.

3. Loyal alumni ask for a *wider door*, not for a lower step, of admission for their sons.

At Hamilton, as at nearly all colleges now, the students are permitted in the third and fourth years of the course to elect their work. We may, therefore, confine our studies in the main to the entrance requirements and to the subjects of the first two years of the college course. It is instructive to compare the conditions of a generation ago with the present arrangement.

ENTRANCE REQUIREMENTS 30 YEARS AGO.

In 1880 the entrance requirements stated in the catalog call for four years of Latin, two (or two and one-half) years of Greek, and two years of Mathematics. Further requirements are indicated in such a vague way that it is impossible to give them fixed values on our present scale of credits. Furthermore every one at all familiar with the administration at that time knows that it was extremely lax, and that in practice the three subjects mentioned were practically the only ones thought of any importance.

ENTRANCE REQUIREMENTS IN 1911.

Latin, four years ; Greek, three years ; Mathematics, two and a half years ; English, three years. Further statements in the catalog are vague and puzzling. "Outlines of U. S. History" is called for. As defined this would be a grammar school subject. If we suppose that high school American History is meant, then we shall have, in the standard measurements of preparatory work, the following scheme :

Latin.....	4 units	Mathematics.....	2½ units
Greek.....	3 units	History.....	1 unit
English.....	3 units		

This makes a total of $13\frac{1}{2}$ units. To make sure that there shall be no misunderstanding of the emphasis placed by the college on the relative importance of studies in the high school, we are told that soon "examinations *here* will be held in the *grammars* of all foreign languages." That is, no certificates, or other evidence of fitness to enter will be accepted in this field.

CURRICULUM OF FRESHMAN AND SOPHOMORE
YEARS IN 1880.

The catalog of 1880-1881 shows the following course of study for the first two years :

Term

1. Greek, Latin, Mathematics.
2. Greek, Latin, Mathematics.

3. Greek, Latin, Mathematics.
4. Greek, Latin, Mathematics.
5. French, English, Mathematics.
6. French, Greek, Latin, Mathematics.

PRESENT CURRICULUM FOR THE FIRST TWO YEARS.

(There are now two terms a year, not three as formerly.)

Term

1. Greek, Latin, German, English, Mathematics.
2. Greek, Latin, German, English, Mathematics.
3. Greek, Latin, German, English, French, Mathematics.
4. Greek, Latin, German, English, French, Mathematics.

(In this term 3 hours of Hygiene and Botany may be elected in place of any one subject except French and English.)

COMPARISON OF PRESENT SCHEMES AND THOSE OF 1880.

	Entrance Units		Semester hours in College (Two years.)	
	1880	1912	1880	1912
Total-----	10	13½	68	68
Language ---	6	10	44	50 (57)
Mathematics_	2	2½	24	11 (17)

Or, to put facts into percentages :

Of total entrance requirement, language was in 1880, 60%.

Of total entrance requirement, language in 1912, 74%.

Of work of two college years, language was in 1880, 65%.

In 1912 a limited amount of election in studies is allowed in the second half of the second year. If the minimum amount of language possible under the rule be taken, language will be 74% of all work. If the maximum amount of language be taken, *language will be 84% of all.* One sees that the changes of thirty years are the result of attempts to reduce the amount of mathematics required. But the changes have been in one direction only, increasing the work in language study. The curriculum of 1880 may have been determined, in part at least, by the exigencies of

planning work with a small faculty. That reason does not exist to-day. Viewed as a plan of education the curriculum of 1912 is less efficient than that of 1880.

THE IDEA OF EDUCATION HAS CHANGED.

When theology, law, and, though in a smaller degree, medicine, were practically the only "learned professions," and when the kind of training offered those who intended to follow them consisted almost exclusively in the reading of a few stipulated books, it was evidently possible to fix a course of study fairly satisfactory to all, and fairly profitable for all. There was at the same time an avowed purpose to "soften the manners, give vigor to the body, enrich the mind, and produce moral excellence."

But the last half century has changed all this completely. We may not, and we must not, forget the principles just quoted, but it has for some time been impossible to limit the field of instruction in which and by which they could be made effective. The bounds of human knowledge have been extended more rapidly than ever before. The process is still going on, and nowhere with greater rapidity than in the United States. The result is first an immense extension of the idea of a "profession" and the absolute necessity for special preparation in every line of occupation. Nobody thinks today of learning medicine by sitting in the office of a doctor. But the conditions are too well known to need further statement.

The need of the individual for some special preparation preliminary to his technical study (the study of chemistry, for example, before pathology); the need of the state for a body of men who shall be ready and willing to attack the complex problems of social well-being; the need of mankind for men of wide vision, genuine sympathy and a true idealism;—these are the objects we must keep in mind in making such selection from the whole field of knowledge as a limited time allows.

THE INDIVIDUAL BASIS OF A COURSE OF STUDY.

The work of the earlier years (to say the least) of the college should, as we all agree, give a training in general habits of thinking and of solving problems similar to those of later life. Huxley says: "the best way to learn how to do a given thing is by doing something as near like it as possible, but under easier and simpler conditions." Another name for this general training is formal discipline, which has been defined: "The practice of the mind in certain forms or methods of thought which are 'common elements' in wide ranges of experience."

Our studies should be so chosen that from them the student may get general concepts of method. Method is not the same in all fields. There have been various analyses and classifications. The following will answer our purpose:

1. The method of pure mathematics, e.g. Geometry.
Exact and universally valid; data fixed and unvaried.
2. The method of the mathematico-physical sciences.
Physics. Similar to 1 in so far as data and causes are known.
3. The method of the biological sciences, e. g., Zoology, Botany. This includes life variations. Forms and data not exact.
4. The method of the psychological sciences, e. g., Psychology. This includes psychic in addition to life variations.
5. The method of the sociological sciences, e. g., History, Language. This adds a third kind of variation, the social.

In each of these fields the method of reasoning is different, and every student should have at least a grounding in each of them. With a basis of knowledge in each of these groups the student will be ready to follow out one of them as his major line of work for the remaining years of his course.

THE SOCIAL BASIS OF A COURSE OF STUDY.

The first aim of any social organization must be self protection. It must live *as an organization* if it is to protect its individual members. This means that its members must be informed of the ways in which its efficiency is promoted, and of the dangers to which it is exposed. We find this idea fully realized, and this purpose attempted in our school and college curricula by the study of social organization and management, under a variety of names:—civics, political science, sociology, economics. (At Hamilton specifically under the title: "Civil Polity.")

Within a generation, however, new factors have become known. Chemistry and Biology are now all important. Modern towns could not exist without the aid derived from a knowledge of their laws. "Civic Biology" is the foundation stone of community life. Public hygiene is a study absolutely imperative in a general course. Local boards of health make life safe in our towns, and state boards in our rural districts. "The first condition for a more highly educated medical profession is a higher intelligence among the laity", said one of our greatest pathologists. A college trained man who is not ready to support the precautions and the remedial measures which science demands constantly, as well as in emergencies, is a disgrace to his college.

The machinery of government, with which our "political and social science" has mostly been concerned is an incident, not the essential of the science. By the study of industrial history, in particular, the proper introduction to an intelligent study of economics is laid. In this way a citizen is made more intelligent for his part in the management and development of society.

Ours is an industrial civilization. The problems of the future are sure to be more and more in this field. The college must do its share in preparing men to perform their useful part in solving them. But with all this a nation's

ideals are not to be forgotten. Literature and art must receive their proper share of attention. Language and philosophy help in their understanding and interpretation ; and, for a few, lead to the creation of new forms, or to new embodiment and expression of old ones.

With these considerations in mind, and after careful study of the various aspects of the problem, the commission submits the following recommendations in three groups :

- A. ENTRANCE REQUIREMENTS. B. THE CURRICULUM.
C. GENERAL EDUCATIONAL POLICY.

SECTION III.

RECOMMENDATIONS.

A. REQUIREMENTS FOR ADMISSION TO THE COLLEGE.

1. Entrance Subjects. The subjects which may be offered for admission to the College, and the amount of each of them are these :

- | | |
|---------------------------|----------------------------------|
| 1. English-----3 units | 8. Mathematics-----2½ to 4 units |
| 2. Greek-----2 or 3 “ | 9. Physics-----I “ |
| 3. Latin_2 or 3 or 4 “ | 10. Chemistry -----I “ |
| 4. German__2 or 3 “ | 11. Physical Geography I “ |
| 5. French___2 or 3 “ | 12. Botany-----I “ |
| 6. Spanish__2 or 3 “ | 13. Zoology-----I “ |
| 7. History__I or 2 “ | 14. Drawing -----½ or I “ |

The term “unit” means five prepared recitations per week for one year of study. Two periods of laboratory work are considered the minimum amount equivalent to one prepared recitation. In determining the character of the work in each subject the definitions of the College Entrance Examination Board shall be accepted.

2. Entrance Requirements.

The minimum entrance requirements for all students shall be 14 units.

REQUIRED SUBJECTS.

<i>For A.B. Course.</i>		<i>For B.S. Course.</i>	
Subject	Units	Subject	Units
English.....	3	English.....	3
Mathematics.....	2½	Mathematics.....	2½
Element. Algebra....	1	Element. Algebra....	1
Interm. Algebra....	½	Interm. Algebra....	½
Plane Geometry....	1	Plane Geometry....	1
History.....	1	History.....	1
Latin.....	4	A Foreign Language.....	3
A Second Foreign Language	2	A Second Foreign Lang....	2
		One Science.....	1

ELECTIVE SUBJECTS.

For Either Course. A minimum of 1½ units to be chosen.

	Units		Units
A third Year of the Second Foreign Language.....	1	Drawing.....	½ or 1
A Second Year of History.....	1	Advanced Algebra.....	½
A Second Year of Science.....	1	Trigonometry.....	½
		Solid Geometry.....	½

The credentials of the College Entrance Examination Board, and of the New York State Education Department, and the certificates of the principals of approved schools shall be accepted in all subjects as a complete satisfaction of all entrance requirements. The additional examinations in English Composition, in "substituted foreign languages," and in the grammars of the Ancient and Modern languages at present prescribed, (College catalog, 1911, page 16) shall be discontinued as unwise and inexpedient.

B. THE COLLEGE CURRICULUM.

In the following statements the term "hour" means one class exercise of prepared work each week for one semester.

An "hour" of laboratory or similar work should be two and one half actual hours.

1. Number of hours required for a degree. The minimum shall be 120, in addition to the work prescribed in physical training and in public rhetorical exercises. These hours shall be distributed as follows: in the Freshman year, 16 hours; in the Sophomore year, 15 hours; in the Junior year, 15 hours; in the Senior year 14 hours.

2. The studies of the course. In language better results will be obtained by reducing the number of different languages now required, both for admission and in college. One or two foreign languages can be carried far enough to approach mastery, but not more than two unless the student have exceptional linguistic ability. Mental discipline and the surer knowledge essential to culture will be better served by a more advanced study of one or two languages than by the mere elementary study of four. With this aim in view, it shall be required of every Freshman in the A.B. course to continue Latin for a fifth year of study in the subject, and to continue the study of the second foreign language presented by him for admission to college until he shall have completed in the same four years work in all. It shall be required of every Freshman in the B.S. course that he continue each of the foreign languages offered for admission to college until he shall have completed in each of them four years work in all. To these rules one single exception shall be allowed, viz. Freshmen who have not presented Greek for admission, and who begin its study in college, may substitute Greek for the fifth year of Latin required of them, or for the required fourth year of other foreign language work.

Mathematics shall be required of all Freshmen who do not present "Advanced Mathematics" for admission.

There shall be prescribed for all Freshmen a course, of not less than three hours per week through the first semester, in Physiology and Private and Public Hygiene.

There shall be prescribed for all Freshmen through the second semester a course in Psychology.

There shall be arranged a thorough course in Biblical Literature and History, which shall take the place of the courses now offered one hour each per week in Biblical Study.

3. Studies of the Freshman year. The studies of the first year shall all, with the slight modifications noted below, be prescribed as follows :

In the A.B. Course.	In the B. S. Course.
Physical Training	Physical Training
Public Rhetorical Exercises	Public Rhetorical Exercises
Mathematics	Mathematics
English	English
Physiology, Hygiene, (half year)	Physiology, Hygiene, (half year)
Psychology, (half year)	Psychology, (half year)
Latin (or Greek), and one of Greek, German, French, Spanish.	Two of these : Greek, Latin, German, French, Spanish.

The rule for the study of foreign language has been stated above. If a student has presented advanced mathematics for admission, he shall take in place of mathematics Physics (or other science).

As a fundamental principle no student shall be allowed to repeat in college, as a part of the work for his degree, work done before entrance.

4. Studies of the Sophomore, Junior and Senior Years.

After Freshman year the studies of the course shall be arranged by classifying the various departments of instruction in groups, following in a general way the system of grouping now used in Dartmouth College so far as it is applicable to Hamilton. These groups are :

Group I.	Group II.	Group III.
Language and Literature	Mathematics, and the Physical and Nat- ural Sciences.	History, the Social Sciences, and Philosophy.

Every student shall be required to complete at least 24 semester hours in one of these groups, and at least 12 semester hours in each of the other two groups.

GENERAL RECOMMENDATIONS.

1. Immediate provision for instruction in Hygiene, both personal and social, and in Physical Training. The appointment for this work of a professor who is a physician, and also an expert in this field which is now universally recognized in American colleges as of prime importance. It shall be the duty of such professor to examine each Freshman at entrance, and to prescribe for him such general or special exercise and training as his case demands. He shall also give a course of instruction in Physiology and Hygiene, (which shall be required of all Freshmen,) and shall have charge of the gymnasium, and shall control all the athletic sports of the college in so far as they affect the health of the students.

2. Provision for more extended instruction in the Spanish language and literature, and in the history, and political and economic conditions of Latin America.

3. Provision for further work than is now possible in the laboratories of Physics, and of Earth Science.

4. Appropriation of money for the purchase of books.

5. Provision for lectures in important fields of learning not directly represented in the curriculum, but in which some knowledge is of general educational value, as in the Fine Arts, for example. Further for Musical recitals of the character already established by members of the Faculty. Arrangements for the admission of other than regular students to such exercises as they may desire to attend, upon payment of a proper fee.

6. The appointment of a joint committee of the trustees and the faculty to consider means of promoting closer relations between the College and the secondary schools.

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APPENDIX.

At the meeting of the Commission on May 11, Mr. T. F. Collier presented an extended comparison of the amount of instruction given in thirteen colleges in the departments of History, Economics, and Political Science. These figures showed the whole number of students in each of these institutions, the whole number of the faculty and the number of instructors in the subjects named in each college, together with the total number of class room hours of instruction in these departments. The following is a summary of his findings.

The colleges compared are : Amherst, Bowdoin, Colgate, Hamilton, Haverford, Lafayette, Middlebury, Rutgers, Trinity, Wabash, Washington and Lee, Wesleyan, Williams.

The average number of class room hours of instruction in all of them is for American History, 170 ; European History, 63 ; Economics, 270 ; Political Science, 124. The figures for Hamilton are respectively, 178, 36, 134, 149.

The number of instructors in the subjects at Hamilton is three, which is the average number for all the colleges named, and is a larger number in proportion to the whole number of students than any other college but one.

The conclusion is that Hamilton does not make in her present curriculum adequate provision for instruction in History, Economics, and Sociology.



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